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## UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:  Ali NIKKHAH  Serial No.: 10/823,040  Filed: April 12, 2004  Title: Cleaning Mechanism for Ion Emitting Air Conditioning Device	Examiner: Not Yet Assigned  Group Art Unit: Not Yet Assigned  <div style="border: 1px solid black; padding: 5px;"><p style="text-align: center;">Certificate of Mailing</p><p>I hereby certify that this correspondence is being deposited with the United States Postal Service Express Mail Service, Label No. ER779121404US in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on June 16, 2004.</p><p><i>Kathy Mojib</i> Kathy Mojib</p></div>
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Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

## PETITION TO MAKE SPECIAL

Sir:

Applicant hereby petitions to make this application special pursuant to the Advancement of Examination procedures set forth 37 C.F.R. §1.102(d) and MPEP 708.02 on the grounds that a search of the prior art has been made.

## REMARKS

In accordance with MPEP 708.02, Part VIII, subparagraphs (A) through (E), the Applicant states as follows:

(A) **Petition Fee.** The Commissioner is hereby authorized to charge the Petition Fee of \$130.00 as set forth in 37 C.F.R. §§ 1.102(d) and 1.17(h) to our Deposit Account No. 50-2922.

(B) **All Claims Directed to Single Invention.** All the claims in the pending application are directed to a single invention. The claims, as filed, do not define independent and distinct inventions; therefore, no restriction should be required.

Nevertheless, if the Patent Office determines that the claims are not directed to a single invention, then Applicant will make an election without traverse as a prerequisite to the grant of special status for the pending application. Applicant prefers, however, to

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defer any required election until the Patent Office determines that a restriction is required and, then, to make any such election using the established telephone restriction practice, as permitted in MPEP 708.02, Part VIII (B).

**(C) Search Made.** Applicant has conducted a pre-examination search using the services of Terry W. Kramer, Esq. of Kramer & Associates. A copy of Mr. Kramer's letter is attached to this Petition as Exhibit 1, and incorporated herein by reference.

Mr. Kramer's letter sets forth the search field, including the classes and subclasses (U.S. and foreign), and the examiners consulted during the search. The letter also includes a schedule of references found.

**(D) Submission of References.** Also attached is an Information Disclosure Form PTO/SB/08A listing the references located during the search.

The following are the prior art references deemed by the Applicant to be most closely related to the subject matter encompassed by the claims of the pending application.

Patent No.	Inventor	Issue Date	Title
2,252,694	Bennett	8/19/41	Electric Discharge Electrode
2,279,583	Slayter	4/14/42	Chemical Synthesis with Electric Precipitation
4,227,894	Proynoff	10/14/80	Ion Generator or Electrostatic Environmental Conditioner
4,231,766	Spurgin	11/4/80	Two Stage Electrostatic Precipitator With Electric Field Induced Airflow
4,689,056	Noguchi et al.	11/25/87	Air Cleaner Using Ionic Wind
4,789,801	Lee	12/6/88	Electrokinetic Transducing Methods and Apparatus and Systems Comprising or Utilizing the Same
6,163,098	Taylor et al.	12/19/00	Electro-Kinetic Air Refreshener-Conditioner with Optional Nigh Light
6,312,507	Taylor et al.	11/6/01	Electro-Kinetic Ionic Air Refreshener-Conditioner for Pet Shelter and Litter Box
6,350,417	Lau et al.	2/26/02	Electrode Self-Cleaning Mechanism for Electro-Kinetic Air Transporter-Conditioner Devices
6,544,485	Taylor	4/8/03	Electro-Kinetic Device with Enhanced Anti-Microorganism Capability
6,632,407	Lau et al.	10/14/03	Personal Electro-Kinetic Air Transporter-Conditioner

6,709,484	Lau et al.	3/23/04	Electrode Self-Cleaning Mechanism for Electro-Kinetic Air Transporter Conditioner Devices
6,713,026	Taylor et al.	3/30/04	Electro-Kinetic Air Transporter Conditioner

**(E) Detailed Discussion of the References and Patentable Subject Matter.**

The following is a discussion summarizing each reference listed above and analyzing the patentability of the claimed invention over the references.

**U.S. Patent No. 2,252,694 issued to Bennett**

The Bennett patent is directed to a cascade arrangement of electrodes in high potential discharge systems. Bennett does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is moved. Further, Bennett does not teach or suggest several other claimed features of the invention. The present invention is, therefore, patentable over the Bennett patent.

**U.S. Patent No. 2,279,583 issued to Slayter**

The Slayter patent discloses a discharge chamber for employing a dual groups of electrodes in particular arrangements. Slayter does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is moved. Further, Slayter does not teach or suggest several other claimed features of the invention. The present invention is, therefore, patentable over the Slayter patent.

**U.S. Patent No. 4,227,894 issued to Proynoff**

The Proynoff patent discloses an ion generator having negative electrodes and a positive accelerator connected to a high voltage power source. The ion generator produces negative ions for the permeation of the atmosphere in living quarters. Proynoff does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is moved. Further,

Proynoff does not teach or suggest several other claimed features. Therefore, the present invention is patentable over the Proynoff patent.

**U.S. Patent No. 4231,766 issued to Spurgin**

The Spurgin patent discloses a two stage electrostatic precipitator air cleaner having electric field induced airflow. A plurality of spaced parallel fin-like accelerator plates charged to a relatively high negative potential are positioned between the positively charged ionizer wires and the collecting stage of the air cleaner. The electric field induced between the accelerator plates and the ionizer wires induces an airflow for bringing the particles charged by the ionizer wires into proximity with the collecting stage while at the same time charging particles aspirated by the air flow. Spurgin does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is moved. Further, Spurgin does not teach or suggest several other claimed features. Therefore, the present invention is patentable over the Spurgin patent.

**U.S. Patent No. 4,689,056 issued to Noguchi et al.**

The Noguchi patent discloses an air cleaner using an ionic wind having discharge electrodes, a counter electrode arranged downstream of the discharge electrodes, and first and second parallel plate electrodes arranged alternately downstream of the counter electrode. The second parallel plate electrodes are connected to a potential pick-up electrode arranged in the vicinity of the discharge electrodes. The first and second parallel plate electrodes which are arranged alternately serve as dust collecting electrodes. Noguchi et al. does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is moved. Further, Noguchi et al. does not teach or suggest several other claimed features. Therefore, the present invention is patentable over the Noguchi et al. patent.

**U.S. Patent No. 4,789,801 issued to Lee**

The Lee patent discloses electrokinetic transducing methods and systems in which two electrode arrays confront each other and each electrode in one array is equidistant from the two nearest electrodes in the other array. Lee does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is moved. Further, Lee does not teach or suggest several other claimed features. Therefore, the present invention is patentable over the Lee patent.

**U.S. Patent No. 6,163,098 issued to Taylor et al.**

The '098 patent discloses an electro-kinetic electro-static air conditioner having a self-contained ion generator that provides electro-kinetically moved air with ions and ozone. The ion generator includes a high voltage pulse generator whose output pulses are coupled between first and second electrode arrays. The first electrode array comprises one or more pin-like electrodes and the second array comprises one or more washer-like electrodes. The '098 patent does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is moved. Further, the '098 patent does not teach or suggest several other claimed features. Therefore, the present invention is patentable over the '098 patent.

**U.S. Patent No. 6,312,507 issued to Taylor et al.**

The '507 patent discloses a hand-holdable electro-kinetic electro-static ionic air refreshener-conditioner for a pet shelter or a litter box having a self-contained ion generator that provides electro-kinetically moved air with ions and ozone. The ion generator includes a high voltage pulse generator whose output pulses are coupled between first and second electrode arrays. The first electrode array comprises one or more pin-like electrodes and the second array comprises one or more washer-like electrodes. The '507 patent does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is

moved. Further, the '507 patent does not teach or suggest several other claimed features. Therefore, the present invention is patentable over the '507 patent.

**U.S. Patent No. 6,350,417 issued to Lau et al.**

The '417 patent discloses an electro-kinetic electro-static air conditioner includes a mechanism to clean the wire-like electrodes in the first electrode array. A length of flexible MYLAR type sheet material projects from the base of the second electrode array towards and beyond the first electrode array. The distal end of each sheet includes a slit that engages a corresponding wire-like electrode. As a user moves the second electrode array up or down within the conditioner housing, friction between slit edges and the wire-like electrode cleans the electrode surface.

The '417 patent also discloses an embodiment wherein a bead-like member has an opening through which the wire-like electrode passes. As the conditioner is turned upside down and rightside up, friction between the opening in the bead-like member and wire-like electrode cleans the electrode surface. The '417 patent does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is moved. Further, the '417 patent does not teach or suggest several other claimed features. Therefore, the present invention is patentable over the '417 patent.

**U.S. Patent No. 6,544,485 issued to Taylor**

The '485 patent discloses an electronic device that generates an output airflow that is subjected to UV radiation from a germicidal lamp within the device. The '485 patent does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is moved. Further, the '485 patent does not teach or suggest several other claimed features. Therefore, the present invention is patentable over the '485 patent.

**U.S. Patent No. 6,632,407 issued to Lau et al.**

The '407 patent discloses a personal electro-kinetic electrostatic air conditioner having a self-contained ion generator that provides electro-kinetically moved air with ions and ozone, and includes a water retaining element to increase humidity of the output air flow. The '407 patent does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is moved. Further, the '407 patent does not teach or suggest several other claimed features. Therefore, the present invention is patentable over the '407 patent.

**U.S. Patent No. 6,709,484 issued to Lau et al.**

The '484 patent discloses an electro-kinetic electro-static air conditioner includes a mechanism to clean the wire-like electrodes in the first electrode array. A length of flexible MYLAR type sheet material projects from the base of the second electrode array towards and beyond the first electrode array. The distal end of each sheet includes a slit that engages a corresponding wire-like electrode. As a user moves the second electrode array up or down within the conditioner housing, friction between slit edges and the wire-like electrode cleans the electrode surface.

The '484 patent also discloses an embodiment wherein a bead-like member has an opening through which the wire-like electrode passes. As the conditioner is turned upside down and rightside up, friction between the opening in the bead-like member and wire-like electrode cleans the electrode surface. The '484 patent does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is moved. Further, the '484 patent does not teach or suggest several other claimed features. Therefore, the present invention is patentable over the '484 patent.

**U.S. Patent No. 6,713,026 issued to Taylor et al.**

The '026 patent discloses an electro-kinetic electro-static air conditioner that includes a self-contained ion generator for providing electro-kinetically moved air with ions and ozone. The ion generator includes a high voltage pulse generator whose output

pulses are coupled between first and second electrode arrays. The first array comprises one or more wire electrodes spaced staggeringly apart from a second array comprising hollow "U"-shaped electrodes. An electric field produced by the high voltage pulses between the arrays produces an electrostatic flow of ionized air. A bias electrode, electrically coupled to the second array electrodes, affects net polarity of ions generated.

The '026 patent does not teach or suggest a post operatively connected to a cleaning plate assembly, wherein the cleaning plate assembly is movable when the post is moved. Further, the '026 patent does not teach or suggest several other claimed features. Therefore, the present invention is patentable over the '026 patent.

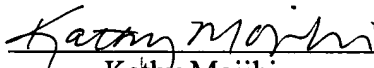
### CONCLUSION

Having satisfied the requirements for the Advancement of Examination as set forth in 37 C.F.R. §1.102(d) and MPEP 708.02, the Applicants hereby seek accelerated examination of this patent application.

The Commissioner is authorized to charge any fee to our Deposit Account No. 50-2922.

Respectfully Submitted,

Date: June 15, 2004

  
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May 26, 2004

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RE: Freedom to Operate Search  
For: **IONIC PRO**  
Your Ref. No.: 19576-0000  
Our Ref. No.: SDA 1040

Dear Griff:

We have completed the freedom to operate search at the U.S. Patent and Trademark Office regarding the above-identified invention. The field of search covered Class 96, subclasses 15, 29, 39, 51, 86, 87, 94 and 96; Class 204, subclass 176; Class 361, subclasses 226, 230 and 232; Class 422, subclasses 186.04, 186.07 and 186.13. Additionally, a computer database search was conducted on the USPTO systems EAST and WEST. Examiner Richard Chiesa in Class 96 (Art Unit 1724) was consulted in confirming the field of search.

The search was directed towards an air purifier. In particular, the search was directed towards an electric purifier to generate electrostatic forces that create air flow without the aid of moving parts. The electrostatic forces also enable the Ionic Pro to collect airborne contaminants, such as dust, pollen, pet dander and other small size particles on a plurality of electrodes as further described in the disclosure.

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Please note the enclosed documents listed in numerical order for convenience:

**U.S. Patent Number**

2,252,694  
2,279,583  
4,227,894  
4,231,766  
4,689,056  
4,789,801  
6,163,098  
6,312,507  
6,350,417  
6,544,485  
6,632,407  
6,709,484  
6,713,026

**Inventor(s)**

Bennett  
Slayter  
Proynoff  
Spurgin  
Noguchi et al  
Lee  
Taylor et al  
Taylor et al  
Lau et al  
Taylor  
Lau et al  
Lau et al  
Taylor et al

**Published Patent Application**

2001/0032544  
2001/0048906  
2002/0079212  
2002/0098130  
2002/0098131  
2002/0122751  
2002/0122752  
2002/0127156  
2002/0134664  
2002/0134665  
2002/0146356  
2002/0150520  
2002/0155041  
2003/0072697  
2003/0147783  
2003/0147785  
2003/0147786  
2003/0159918  
2003/0165410  
2003/0170150  
2003/0206837  
2003/0206839

**Inventor(s)**

Taylor et al  
Lau et al  
Tylor et al  
Hai Fong  
Taylor et al  
Sinaiko et al  
Taylor et al  
Taylor  
Taylor et al  
Taylor et al  
Sinaiko et al  
Taylor et al  
McKinney, Jr. et al  
Taylor  
Taylor  
Joannou  
Taylor  
Taylor  
Taylor  
Lau et al  
Taylor et al  
Taylor et al



<u>Published Patent App. (cont'd)</u>	<u>Inventor(s) (cont'd)</u>
2003/0206840	Taylor et al
2003/0209420	Taylor et al
2003/0233935	Reeves et al
2004/0003721	Lau et al
2001/0018126	Lau et al
2004/0033176	Lee et al
2004/0033340	Lau et al
2004/0047775	Lau et al
2004/0052700	Kotlyar et al
2004/0057882	Lau et al
2004/0079233	Lau et al
2004/0096376	Taylor et al

**Brief Description Of The Documents:**

U.S. Patent Number 2,279,583 shows an electrode arrangement employing alternating current supplied through a transformer, and discharging portion wherein chemical reaction is effected and movement is imparted to the gasses in the direction of arrows 3, and a precipitator portion 5. See Figure 1, Page 1, lines 49-40, Page 2, lines 1-50, and Claim 1.

U.S. Patent Number 4,231,766 shows a two stage electrostatic precipitator with electric field induced airflow. See Claim 1.

U.S. Patent Application Number 2004/0079233 shows a user liftable handle member 112 affixed a second array 240 of electrodes 242 within an electrode assembly 220 which also comprises a first array of electrodes 230, shown here as a single wire or wire-like electrode 232. Lifting member 112 upward lifts second array electrodes 240 up and, the bottom end of the second array is connected to a member 113 to which is attached a mechanism 500 for cleaning the first array electrodes. See Figure 5A, Paragraph [0044], and Claim 1.

The remaining documents are of general interest for showing air purifiers using electrostatic forces to create airflow without the aid of moving parts.



Griff Griffin, Esq.  
May 26, 2004  
Page 4

While the above-noted Examiner was consulted and confirmed our opinion that the most relevant areas for this invention were reviewed, further searching may uncover additional patents. NOTE: The field of search included the most pertinent areas identified by the Examiner and our office as containing relevant patents.

NOTE: Patent Number 6,176,977 and the references cited on it are not included in this report.

Enclosed are copies of the cited documents and our invoice for services rendered and disbursements for this matter.

As always, if you have any questions regarding this search, please do not hesitate to call us at (703) 413-5000.

Very truly yours,



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TWK/nsa  
Enclosure





IP-4002US

## UNITED STATES PATENT AND TRADEMARK OFFICE

<p>In re application of:</p> <p>Ali NIKKHAH</p> <p>Serial No.: 10/823,040</p> <p>Filed: April 12, 2004</p> <p>Title: Cleaning Mechanism for Ion Emitting Air Conditioning Device</p>	<p>Examiner: Not Yet Assigned</p> <p>Group Art Unit: Not Yet Assigned</p> <div><p>Certificate of Mailing</p><p>I hereby certify that this correspondence is being deposited with the United States Postal Service Express Mail Service, Label No. ER779121404US in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on June 16, 2004.</p><p><i>Kathy Mojibi</i> Kathy Mojibi</p></div>
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Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

### AUTHORIZATION TO CHARGE DEPOSIT ACCOUNT

Dear Sir:

The Office is hereby authorized to charge any fees in connection with the above-referenced application to Deposit Account 50-2922.

Respectfully Submitted,

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